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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,153	02/01/2001	Katsuhiko Torii	2842.02US01	1357

7590 10/23/2003

Douglas J Christensen
Patterson Thunte Skaar & Christensen
4800 IDS Center
80 South Eighth Street
Minneapolis, MN 55402-2100

EXAMINER

JOYCE, WILLIAM C

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,153

Applicant(s)

TORII ET AL.

Examiner

William C. Joyce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-64, 67-77, 79-98, 100-102, 105 and 110-112 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-64, 67-70, 76, 77, 79-86, 91, 92, 97, 98 and 110-112 is/are rejected.
- 7) ☒ Claim(s) 71-75, 87-90, 93-96, 100-102 and 105 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

This Office Action is in response to the amendment filed July 28, 2003 for the above identified patent application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 57 and 68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-Claim 57, lines 1-2, the limitation "the compensating mechanism lacks proper antecedent basis.

-Claim 68, lines 1-2, the limitation "the bearing" lacks proper antecedent basis.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 53-57, 61-64, 67-70, 76 and 98, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Leu (US Patent 3,110,381) in view of Sato (JP 08-200401).

Leu discloses a mechanical actuator comprising a motor (1), an output unit coupled to the motor, the output unit having a worm gear drive (8,9) for transmitting

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rotation of the motor to the driven device, a housing for accommodating the worm drive, a clutch (19,20) located between the rotating shaft of the motor and the worm drive, the clutch having a plurality of rolling bodies (27,28), wherein the clutch allows the transmission of rotation from the motor to the worm drive and blocks transmission from the worm drive to the motor.

Leu does not disclose not clearly illustrate a support member for supporting a relative positional relationship of the rolling bodies, however a clutch having the claimed feature was known in the art. For example, the prior art to Sato illustrates (see Figs. 1-9) a clutch having rolling bodies (6,21) held in a predetermined position by a support member (4,5,23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the clutch of Leu with a clutch having rolling bodies supported by a support member, as taught by Sato, motivation being to provide a reverse locking device having means to accurately position the rolling bodies in a predetermined position so as to produce a more reliable device.

With respect to claim 63, Leu does not disclose the driven rotor formed integrally with the work shaft. It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally form the driven rotor and the worm shaft, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

With respect to claim 70, Leu does not disclose the materials used in forming the driving rotor or the driven rotor. It would have been obvious to one having ordinary skill

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in the art at the time the invention was made to form the rotors from the claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

With respect to claims 76, Leu does not disclose the actuator used in combination with a lifting mechanism for displacing a windowpane, however it was known in the art to use an actuator for displacing a windowpane (see instant specification). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the actuator of Leu for displacing a window pane, motivation being to provide a mechanized windowpane device which is easily displaced by an operator.

5. Claims 53-57, 61-64, 67-70, 76, and 98, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Leu (US Patent 3,110,381) in view of Boyden (US Patent 3,243,023).

Leu discloses a mechanical actuator comprising a motor (1), an output unit coupled to the motor, the output unit having a worm gear drive (8,9) for transmitting rotation of the motor to the driven device, a housing for accommodating the worm drive, a clutch (19,20) located between the rotating shaft of the motor and the worm drive, the clutch having a plurality of rolling bodies (27,28), wherein the clutch allows the transmission of rotation from the motor to the worm drive and blocks transmission from the worm drive to the motor.

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Leu does not disclose not clearly illustrate a support member for supporting a relative positional relationship of the rolling bodies, however a clutch having the claimed feature was known in the art. For example, the prior art to Boyden illustrates a clutch having rolling bodies (44) held in a predetermined position by a support member (32,46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the clutch of Leu with a clutch having rolling bodies supported by a support member, as taught by Boyden, motivation being to provide a reverse locking device having means to accurately position the rolling bodies in a predetermined position so as to produce a more reliable device.

With respect to claim 63, Leu does not disclose the driven rotor formed integrally with the work shaft. It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally form the driven rotor and the worm shaft, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

With respect to claim 70, Leu does not disclose the materials used in forming the driving rotor or the driven rotor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the rotors from the claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

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With respect to claims 76, Leu does not disclose the actuator used in combination with a lifting mechanism for displacing a windowpane, however it was known in the art to use an actuator for displacing a windowpane (see instant specification). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the actuator of Leu for displacing a window pane, motivation being to provide a mechanized windowpane device which is easily displaced by an operator.

6. Claims 58-60 rejected under 35 U.S.C. 103(a) as being unpatentable over Leu (US Patent 3,110,381) and Sato (JP 08-200401) as applied to claim 53 above, and further in view of Adam et al. (US Patent 4,713,568).

Leu does not clearly show the details of the motor, such as having a commutator or a brush holder, but providing a motor having the claimed features was known in the art. For example, the prior art to Adam et al. teaches the claimed commutator and brush holder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the motor of Leu with the claimed motor features, as taught by Adam et al., motivation being to provide a simple and well known motor for driving the actuating mechanism.

7. Claims 77, 79-86, 91, 92, 97, 110-112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Profet (US Patent 3,559,499) in view of Akiyama et al. (US Patent 4,673,836).

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Profet discloses a mechanical actuator comprising a motor (14), an output unit (22, 24) coupled to the motor, the output unit having a worm gear drive (74, 76) for transmitting rotation of the motor to the driven device, a housing for accommodating the worm drive, a clutch (38, 54, 56) located between the rotating shaft of the motor and the worm drive, a clutch housing (12) fixed to a unit housing, a driving rotor (38) coupled to the motor, a driven rotor (54) coupled to a worm shaft of the worm drive, a lock member (56) for selectively allowing and blocking the rotation of the driven rotor.

Profet does not clearly show the details of the motor, such as having a commutator or a brush holder, but providing a motor having the claimed features was known in the art. For example, the prior art to Akiyama et al. teaches a motor having a brush holder (20) fitted into an open end of a motor housing, and the brush holder having a bearing (58) for supporting the motor shaft. It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the motor of Profet with the claimed motor features, as taught by Akiyama et al., motivation being to provide a relatively simple motor which can be easily assembled to a gear actuator.

With respect to claim 85, Profet does not disclose the driven rotor formed integrally with the work shaft. It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally form the driven rotor and the worm shaft, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

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With respect to claim 92, Profet does not disclose the materials used in forming the driving rotor or the driven rotor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the rotors from the claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Allowable Subject Matter

8. Claims 71-75, 87-90, 93-96, 100-102, 105 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the brush holder of Paisley ('274).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (703) 305-5114. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


William C. Joyce 10/17/03